









Distinguished **Lecturers Program** (DLP)

# "Solar and Alternative Energy- The Engineering Issues"

19<sup>th</sup> July 2007 (Thursday): 2.00 - 4.30 pm Dewan Kuliah Utama. Universiti Teknologi Mara, Pulau Pinang

#### Organized by:

Power Electronics, Industrial Electronics and Industry Applications Societies (PELS/IES/IAS) Joint Chapter of IEEE Malaysia Section

- Faculty of Electrical Engineering, UiTM Shah Alam
- Faculty of Electrical Engineering, UiTM Pulau Pinang



### Seminar Overview

The subject of "alternative" or "renewable" energy is one which typically evokes emotive and political responses, and these responses often have higher visibility than the engineering issues. This presentation provides a science / engineering overview of possible schemes presenting information which can help determine the viability of alternative energy sources for different situations. The presentation emphasizes the two separate but equally important and complementary issues of energy provision and the efficiency of its use. The presentation will touch on the parallel issue of energy storage, including a few thoughts on the hydrogen economy, before concluding with a look at energy use in transportation, and hybrid vehicles.

## Seminar Presenter (Prof. Dean Patterson, Fellow, IEEE)

Dean Patterson was born and raised in the Southern Australian city of Adelaide, where he took his degrees from the University of Adelaide. In 1984 he went to the remote tropical north of Australia, to the city of Darwin, to help set up a new university. He was responsible for the 4 year undergraduate degree program, the graduate degree program, and the establishment of a research focus. He immediately got involved in building solar cars for the tri-annual races across Australia which began in 1987, so the research focus naturally ended up in the area of solar and alternative energy. He developed a high performance electric traction system for the solar vehicles, and specialised his research into high performance axial flux permanent magnet machines. In 2001 he went to the USA, to the University of South Carolina as a research professor, working on the electric ship program of the US Navy, and in 2004 was invited to the University of Nebraska Lincoln, to help set up courses in Energy Studies. He is the author of about 100 technical papers. He is a Fellow of both the Institution of Engineers Australia, and the Institution of Electrical and Electronic Engineers, (IEEE). He has been very active in the IEEE Power Electronics Society, having just completed a 2 year term as President of that society. His spin-off company from the Northern Territory University, specialising in high performance machines, was bought in 2006 by FASCO/TECUMSEH. He now divides his time between the company and the university.

### Registration

This is a Free Lecture Seminar but registration is required for logistics. Seats are limited: first come first serve basis. For more details, please contact:

Mohd Najib Mohd Hussain **IEEE PELS/IAS/IES Seminar Secretariat** UiTM Pulau Pinang, Selangor.

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For more information on the location, please visit;

http://www.penang.uitm.edu.my (Look for Peta Lokasi)

To know more about our PELS/IAS/IES Joint Chapter, please visit http://ewh.ieee.org/r10/malaysia/ie ia pel/

Kindly fax this page back to the Seminar Secretariat latest by 14<sup>th</sup> July 2007.

1. Fax: 04-3822776 (Attn: Mohd Najib )/Email: najib830@ppinang.uitm.edu.my

2. Fax: 03 5543 6093 (Attn: Mustafar)/Email: mustafar@ieee.org











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# An invitation to a Technical Seminar on

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19<sup>th</sup> July 2007 (Thursday) : 2.00 - 4.30 pm Dewan Kuliah Utama, Universiti Teknologi Mara, Pulau Pinang

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